FLEXIBLE ARRAY



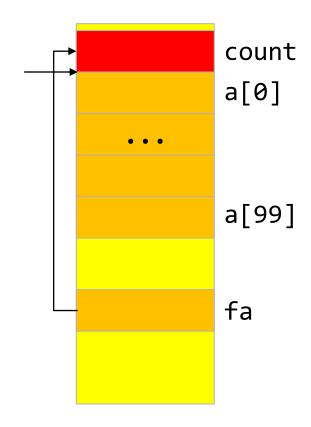
- ◆ flexible array의 개념을 이해한다.
- ♦ flexible array를 구현할 수 있다.

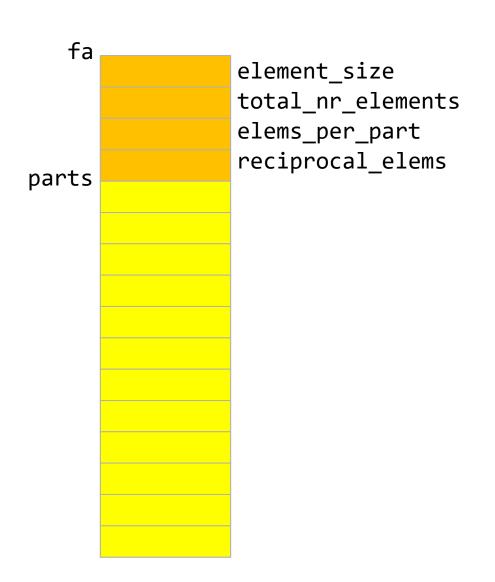
- 1) flexible array 개념
- 2) flexible array 분석/구현

flexible array 개념

```
struct array
     int count;
     int a[0];
};
                                                               count
                                                               [0]
```

flexible array 개념





```
flex_array_alloc( 4 , 100 , 0);
   fa
           4
                  element_size
                  total_nr_elements
          100
                  elems_per_part
         1024
                  reciprocal_elems
       4194304
parts
                  [0]
       0x6c6c6c6c
       0x6c6c6c6c [1019]
```

```
flex_array_put(fa, 1, &n, 0 );
 fa[1] = n;
   fa
           4
                  element_size
                  total_nr_elements
          100
                  elems_per_part
         1024
                 reciprocal_elems
       4194304
parts
       0x6c6c6c6c
                  [0]<del></del>
                  [1]
           10
                                  element_nr
       0x6c6c6c6c
                            10
                                  n
       0x6c6c6c6c
       0x6c6c6c6c
       0x6c6c6c6c
                                  src
       0x6c6c6c6c
                                  dst
       0x6c6c6c6c
       0x6c6c6c6c
                                  part nr
                             0
       0x6c6c6c6c
       0x6c6c6c6c
                                  part
                  [1019]
       0x6c6c6c6c
```

```
p = (int*)flex_array_get(fa, 1);
 p = &fa[1];
 *p;
   fa
                  element_size
                  total_nr_elements
          100
                  elems_per_part
         1024
                 reciprocal_elems
       4194304
parts
                 [0]
       0x6c6c6c6c
                  [1]
           10
                                 element_nr
       0x6c6c6c6c
       0x6c6c6c6c
       0x6c6c6c6c
                                 p
                            10
       0x6c6c6c6c
       0x6c6c6c6c
       0x6c6c6c6c
       0x6c6c6c6c
                                 part_nr
                            0
       0x6c6c6c6c
       0x6c6c6c6c
                                 part
                 [1019]
       0x6c6c6c6c
```

```
flex_array_put(fa, 1500, &n, 0 );
 fa[1500] = 10;
   fa
           4
                  element size
                  total_nr_elements
         2000
                  elems_per_part
         1024
                                                           [0]
                                                0x6c6c6c6c
                  reciprocal_elems
       4194304
                                                0x6c6c6c6c
parts
                  [0]
           *
                                                0x6c6c6c6c
                   [1]
                                  element_nr
                           1500
           *
                                                           [1023]
                                                0x6c6c6c6c
                            10
                                 n
           *
           *
                                                0x6c6c6c6c
           *
                                  src
                                                0x6c6c6c6c
           *
                                  dst
                                                0x6c6c6c6c
           *
                                                   . . .
           *
                                  part_nr
                                                           [476]
                             1
                                                   10
           *
           *
                                  part
                  [509]
```